the next day three small farmers who all had to finish with the watering of their fields in one day. 241 312

The farmer in the mountainous wastes of Ladakh and Tibet where there is little rainfall it is totally dependent upon artificial methods of irrigation, for in the summer it often does not rain for weeks, yes, even for months. For this reason water is a very valuable commodity to the mountain inhabitant, the just distribution of which he jealously watches over; also, since time immemorial strict laws regulate the construction, maintenance, and use of the communal village pipeline. Every owner of a field, depending on the size of his property, must supply one or more persons for the communal work on this pipeline, just as the length of time that he can use it is made to correspond to the size of the surface to be watered. Most water channels require considerable mending work year after year, since snow and mud avalanches often... large parts /there appears to be at least one line missing here in the original text, the preceding sentence being unfinished and the paragraph ending with the final part of another sentence:--translator./... all had to be ready with the watering in one day. /The latter is simply a repetition of the last line of the previous paragraph. --translator./ [476]

When the grain is about a span high the fields are weeded with the care with which a gardener clears his cabbage patch of weeds. When the wheat is ripened it is not mowed with the blunt /32/ sickle but is plucked out roots and all. The left hand grasps a bundle of stalks and the sickle in the right hand, which really acts more like a hook than like a cutting implement, plucks out the stalks. On the average the field holdings are very small and the harvest yield is scant in the high mountain areas, so that every inch of stalk is valuable as straw, as feed--not as litter--for the cattle. As a result the Tibetan farmer cannot afford to leave the stubbles standing. After the grain has been bound together in small sheaves and has been laid in rows on the field, in order to ripen fully after it has been gathered, it must be guarded against thieves; one of the men must "watch" among the sheaves at night; that is to say, he must sleep there, on the assumption that he will wake up at the slightest sound. 241 [412]

Among all peoples of the East threshing is done by cattle. Six to nine animals, oxen, cows, horses, and donkeys, often in variegated order, are tied together to a rope at short distances from each other. One end of the rope is fastened by a sling to a post which is planted in the middle of the circular threshing-floor. The threshing-floor is

372 because the latter had several times gone out without the tsepo (the
415 little carrying basket woven with straw) on her back. The old woman said that only shemas (noble women) or slovenly females did such things. Going out without a tsepo was useless because one missed the fine opportunity for collecting dung. Namgyal (14) enjoyed gathering

551 14. From now on the relatives call the boy mostly only by his second name "Namgyal" omitting, as a rule, the ugly protective name "Drogpa," except on occasions when they again want to frighten threatening spirits with the name, or when they want to differentiate namesakes.

wood because it gave him the opportunity to wander through mountain
231 and valley. But it was a particular delight to him to drive the herd
•476 of sheep and goats of the village into the mountains with his father or uncle or later with an older companion, whenever it was the turn of the Dragshos house to tend the village herd. They would get under way as soon as the sun had gone up over the double cone of the Bragnuma. His mother would give the boy a sizable /35/ lump of kollag (a lump of roasted barley flour kneaded into a firm dough with tea or beer) to take along, which the boy would bind, wrapped in a cloth, inside his long waist-belt or sash. Everyone would take a sturdy stick into his hand, Namgyal would also tie his slingshot inside his sash, and then they would go up into the mountains.

First their own herd of about 50 sheep and goats is driven out of the narrow, dark stable. Then they go along the twisting village street and at every courtyard another small herd joins them, in the case of the small farmers consisting of only five to six animals, until the entire village herd is together. They turn into a side valley,
231 slowly driving the herd on through loud shouts, as well as luring it on, and there the young herders lead it along the brook where the animals line up in rows to take their morning drink. Until evening there is then usually not a drop to drink in this wilderness. If a wayward goat (15) should decide to move too far away from the rest of the

15. The Tibetan goat which is often falsely designated as a "Kashmir goat," is a small, extremely agile and very easily satisfied animal which climbs with the adroitness of a chamois. It supplies the fine wool which in Kashmir is worked into the famous shawls and similar fine woven products.

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prising that in the rarefied atmosphere of such high altitudes as in Ladakh, where there is little precipitation and the land extremely dry and sandy, the power of the sun is very great. This in turn produces the winds which blow almost constantly from the south and south-westerly directions. The winds on the highlands of Rupshu, for instance, are continuous throughout the year, and they blow with great force when there is not even a vestige of cloud. These winds are dry and extremely cold, since they blow over the glaciers and snow accumulations, so that it may be truly said that Ladakh is in the belt of "windswept Central Asia." When travelling in these regions you cannot fail to observe that when the day is cloudy the strength of the wind is not so great; sometimes, indeed, there is no wind at all, whilst it rises to a gale immediately the skies clear. This is one reason why the traveller in these elevated regions prefers to cross the high passes ranging from 13,000 to 18,000 feet when the sky is overcast. You can never be certain of weather conditions on a pass, but when bad weather is encountered it is easier to tolerate a mist or even heavy snowfall than a powerful wind, which not only impedes progress but chills you to the bone. Long exposure to such a wind, be the sun ever so bright and warm, can reduce your morale and physical energy to a point bordering on collapse.

The peasants of Ladakh are sturdy and cheerful people, inured to long exposure to the sun and wind. Their physical endurance when on their trading expeditions or when carrying heavy loads over a pass in the teeth of a howling wind or blinding blizzard is phenomenal. They contrive to raise crops as good as can be expected considering the unpromising nature of the soil coupled with the difficulties of cultivating them at extremely high altitudes.

The herd instinct, so notably developed in the Tibetans, precludes any effort on the part of the individual to increase his annual output of crops. If a peasant wishes to open up a piece of waste land or contemplates cutting a watercourse to irrigate it, he is obliged to obtain the permission of the community. His well-intentioned plans are usually frustrated by the prejudice and conservatism of the villagers. They at once obstruct him by saying that any such enterprise would interfere with the area required for the pasturage of the communal flocks. The immediate result is that any idea of agricultural progress is strangled at its birth by the tyrannical communal conscience, which is contented to remain *in statu quo* as regards agricultural pursuits.

The practice of interchange of farming implements, such as has been customary from time immemorial, and the borrowing of oxen to till the land, tend to deprive a man of his inalienable right to independence. This is mainly due to the fact that the average Tibetan is too poor to purchase his own farm implements and too indigent to support the number of cattle necessary for the proper development of his farm. The measure of a farmer's wealth is calculated by the number of his horses, sheep, goats, and oxen, as well as the size of his granary. Very little money is passed from hand to hand, labour being paid for in man-power or in grain. Many peasants who have land but not sufficient manure to enrich it sub-let part or the whole of it on the understanding that the tenant

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476 556 436 427 161 595 181 receives half the crop in return for working the fields, the landowner being responsible for the water-supply and the payment of land revenue.

In Ladakh, as well as in Tibet proper, where the country to a large extent is sterile, the Malthusian law, by which "there is a tendency on the part of the population to increase at a greater ratio than its power of producing food," actually operates. There have been writers who with great plausibility advanced the view that the practice of fraternal polyandry (plurality of husbands) was intended to combat this tendency. It is more likely, however, that the custom of polyandry derives its origin from a crude state of society and originally had no such economic significance. On the other hand, it is quite possible to conceive of a condition of affairs in this arid and sandy country likely to cause widespread famine or continual warfare. Actually neither occurs, for, together with polyandry, groups of families live in one or more houses attached to the paternal property. Moreover, Tibetans generally are not warlike, and the universal virtue of hospitality and the giving of alms to all and sundry acts as a kind of safety valve against famine and war.

241 787 805 Farming activities at the outset are mildly controlled by religious sanctions, and the peasants consult the oracle dictated by the Buddhist priesthood as regards the auspicious moment at which farming operations may proceed. In practice, however, the auspicious time for ploughing and seeding coincides with the time at which the sun strikes certain prominent mountain peaks or cliffs at sunrise, meridian, or sunset. For [114] instance, in a village in which I lived for ten years, a chart of the time of day was drawn up covering a whole year, based on the moment when the sun set over a particular snow-capped peak. The local astrologer—usually a lama or Buddhist priest—also compiles a calendar which serves as a guide to the farmers who can read.

241 134 In spite of the aridity of the country and the lack of moisture, the harvests of Ladakh cannot be said to be insufficient to feed the people. The soil, however unpromising, has the peculiarity of yielding good crops year after year without its being allowed to lie fallow and without, in many cases, any attempt to cultivate an alternation of crops.

241 When a farmer contemplates opening up waste land he must first clear the ground of obstructions, such as rocks, stones, and rough grasses, and then contrive to level the surface. Everywhere you see fields constructed in the form of terraces along the sides of the hills, the stones and top layer of the earth being brought down from a higher to a lower level so as to form a wall or buttress. These parallel terraces of levelled-out land are supplied with water conducted in channels from a mountain torrent caused through the melting of glaciers or accumulations of snow. Another ingenious device for obtaining what will one day become arable land is that of building stone dikes across the sloping sides of mountains near their base. These are constructed by the peasants to assist the deposit of soil and gravel by the melting snows. They are left for years and sometimes generations for the operation of nature in preparation for the labour of man, so that in due course a sterile declivity becomes an accessible flight of terraces of cultivation.

The soil thus reclaimed from the stony and barren mountain sides has

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A Second Crop.

241 In recent years the peasants have shown considerable enterprise by sowing two crops in a year, the first being that of barley, followed by a crop of buckwheat.

How Grass and Straw are sold.

435 When selling grass, the peasant disposes of it at the rate of one rupee per two 'martacks' (a martack being a load of grass which can be enclosed by a leather rope 24 cubits in length).

[482] Similarly, straw is sold by the martack, but in order to carry this load it is necessary to use two ropes of 24 cubits length, and adjust them so as to form a sort of net. Three of these loads of straw can be bought for a rupee.

241 *Method of Sowing.*

The seed is first scattered over the field and then ploughed in with a light plough which can

[231] easily be carried on one's shoulder. The plough is drawn by *dzos* (male hybrid of a yak and a cow), whereas in other parts of Tibet the seed is thrown into the furrows.

Occasionally a harrow made of thorns tied together is drawn across the ploughed field by *dzos*, though the usual practice is to beat the clods of earth with mattocks.

427 *Letting Land.*

It often happens that a farmer will let his land

241 to another, because he is too short-handed to cultivate it himself, or because he contemplates a trading expedition into the interior of Tibet. The arrangement that is made therefore is that the tenant receives half the crop in return for seeding, the seed being supplied by the tenant, ploughing, irrigating, weeding, threshing and winnowing the crop, whilst the landowner pays the revenue and the cost of repairing and watching the watercourse supplying the field with water.

249 *Rusta* (*Inula Helenium*).

Of late years the peasants have engaged energetically in the development of a spicy root called *Rusta* (Inula Helenium). This root was originally smuggled into the country from the Kashmir State which has the monopoly of *Rusta*. It is readily grown and, when matured, dried and sold, yields a handsome profit, its cost price being about Rs. 2 and 8 annas per lb.

Exchange of Labour.

● 476 As most transactions between the peasants are

[436] conducted by way of exchange in goods or labour, little money is passed from hand to hand.

For instance, if a farmer requires three or four

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476 men or women to assist him in working his fields for a given number of days, he must on a subsequent occasion supply the equivalent in man power when called upon to do so.

The Farm Servant (*Len-mi*).

536 The more opulent farmers keep one or more men or women as permanent servants. These
464 are employed from spring until autumn, their
465 remuneration consisting of one piece of homespun cloth sufficient to make an outer garment, board and lodging, and a payment of 12 rupees at the expiration of their period of service. If the servant be a male, his allowance is the same as that given to a woman, with the exception that he receives double that amount of money (*i.e.*, 24 rupees). In some cases, however, the payment is entirely in kind.

233 *Village Shepherds* (*Lug-rdzi*).

[422] Each village employs three shepherds to pasture the communal flocks. These shepherds
464 have, however, to perform subsidiary duties, such
621 as assisting each householder in building or repairing walls round the fields, ploughing and threshing.

When the harvest is gathered in, the shepherds make a house to house collection of barley and buckwheat. In addition to this they receive one fifth of the produce of wool from the communal flocks, which is divided amongst them equally.

Loans in Grain.

426 Many of the monastic institutions in Western
792 Tibet are very wealthy and increase their income
241 by negotiating loans of grain to the poorer peasants, taking interest at the rate of five measures for each kal of grain lent (*i.e.*, 10 lb. of grain for every 40 lb. lent, *viz.*, 25 per cent.). The result of this extortionate rate of interest is to put the poor farmer entirely in the hands of the priesthood, and rob him of every chance of increasing his annual output of crops through acquiring new farm implements or improving his land in other ways.

Manufacture of Beer.

273 The consumption of locally brewed beer from barley is very considerable, for at least one third of the annual yield of barley is converted into this liquor. Whilst it is difficult to estimate the
273 exact quantity of barley used for the manufacture of beer, the average would be roughly 20 *kals* of
439 barley per household (800 lb.) This means that the Lahouli has to import large quantities of